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BABCOCK IP

Claim Amendments

1. (canceled)

2. (canceled)

3. (currently amended) The antenna of claim 21, further including at least one RF absorbing element at one of a top of the RF reflector, a bottom of the RF reflector and the top and the bottom of the RF reflector.

4. (currently amended) The antenna of claim 21, further comprising a radome enclosing the antenna element and a rotational path of the RF reflector.

5. (currently amended) The antenna of claim 21, further comprising a fixed feed connection coupled to the antenna element.

6. (currently amended) The antenna of claim 21, wherein the antenna element is at least one trace on a supporting substrate.

7. (original) The antenna of claim 6, wherein the supporting substrate is a printed circuit board.

8. (original) The antenna of claim 7, further comprising an antenna tuning circuit on the printed circuit board.

9. (currently amended) The antenna of claim 21, wherein the antenna element is metal.

10. (currently amended) The antenna of claim 21, wherein the antenna element has an omni-directional signal characteristic in a plane normal to the vertical axis.

11. (currently amended) The antenna of claim 21, wherein the RF reflector is metal.

12. (currently amended) The antenna of claim 21, wherein the RF reflector is one of a metalized and a metal coated substrate.

13. (currently amended) The antenna of claim 21, wherein the RF reflector has two planar surfaces joined to each other at an angle.

14. (currently amended) The antenna of claim 21, wherein the RF reflector has a parabolic curve shape.

15. (currently amended) The antenna of claim 21, wherein the RF reflector has an elliptical curve shape.

16. (currently amended) The antenna of claim 21, further including a diplexer coupled to the antenna element.

17. (currently amended) The antenna of claim 21, further including a transceiver circuit coupled to the antenna element.

18. (currently amended) The antenna of claim 21, further including a motor control circuit.

19. (currently amended) The antenna of claim 18~~7~~, wherein the motor control circuit is configured to rotate the RF reflector, monitor at least one signal strength and rotate the RF reflector to a first position where the at least one signal strength is maximized.

20. (original) The antenna of claim 17, wherein a signal identifier may be input into the motor control circuit; the motor control circuit operable to rotate the RF reflector to a second position at which a signal corresponding to the signal identifier is maximized.

21. (currently amended) A rotatable antenna, comprising:

an antenna element having a vertical axis;

a RF reflector rotatable about the vertical axis of the antenna element, the RF reflector mounted on a gear coupled to a motor; and

a radome that surrounds the antenna and the RF reflector, the RF reflector rotatably coupled to the radome at a top position proximate the vertical axis of the antenna element.

22. (canceled)

23. (canceled)

24. (currently amended) A rotatable antenna, comprising:

an antenna element having a vertical axis;

a RF reflector rotatable about the vertical axis of the antenna element, the RF reflector mounted on a gear coupled to a motor;

the antenna element is a first trace on a printed circuit board;

the first trace has a first plurality ground traces alternating with a first plurality of microstrip transmission lines; and

a second trace, electrically interconnected with the first trace at a short circuit proximate a top of the antenna element has a second plurality of ground traces alternating with a second plurality of microstrip transmission lines;

the first trace and second trace arranged whereby each of the first plurality of microstrip transmission lines of the first trace are aligned in an electrically isolated overlay with each of the second plurality of ground traces of the second trace.

25. (original) The antenna of claim 24 wherein a plurality of gaps along the vertical axis are located between each of the overlay of the first plurality of microstrip transmission lines of the first trace and the second plurality of ground traces of the second trace.

26. (original) The antenna of claim 25 wherein a distance between a centerpoint of the gaps along the vertical axis is one half wavelength of a desired operating frequency.

27. (original) The antenna of claim 21 wherein the gear is rotatably supported by a bearing ring.

28. (canceled)

29. (canceled)